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EXAMINER	
MANSKAR, KRISTEN	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

TH

Office Action Summary	Application No.	Applicant(s)	
	10/635,112	KENNEDY, SHEILA	
	Examiner	Art Unit	
	Kristen A. Manskar	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/10/03 and 4/14/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claim 3** is objected to because of the following informality: "and/or" is indefinite and does not clearly define the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-8,11,12,14,19,21-24, 26, 36,37, and 39** are rejected under 35 U.S.C. 102(b) as being anticipated by Watters, et al. (Patent 2,935,151) hereafter referred to as Watters.

4. With respect to claim 1, Watters discloses A light-emitting acoustic module, comprising: a backing panel (5) attachable to a support (3); a light-diffusing acoustically non-reflective cover attached to the backing panel (Column 2, Lines 25-30), at least a portion of the cover being spaced apart from the backing panel to define a cavity between the backing panel and the cover (via reference number 7), the cover forming a ceiling surface (Column 1, Lines 17-21); and a plurality of light-emitting elements disposed in the cavity between the backing panel and the cover (1), the light-emitting elements being operative to produce light diffusible through the cover (Column 2, Lines 52-63).

5. Regarding claim 2, Watters discloses a light-emitting acoustic module, wherein the cover is fabric (Column 6, Lines 24-27).

6. In reference to claim 3, Watters discloses a light emitting acoustic module wherein the fabric cover is draped and/or stretched over the backing panel (Figure 1 shows the panel "draped" over the backing panel).

7. Watters discloses the light emitting module of claim 4, wherein the cover is made of a non-rigid material (cloth, Column 6, Lines 24-27), and further comprising a rigid spacing member (7) disposed between the backing panel and the cover maintaining separation therebetween (Figure 1).

8. In regard to claim 5, Watters discloses a light-emitting acoustic module, wherein the spacing member is a centrally disposed cylindrical sleeve (Figure 1 shows a cylindrical spacing member).

9. In reference to claim 6, Watters discloses a light-emitting acoustic module, wherein the light-emitting elements are attached to the spacing member (Figure 1 shows attachment via a mutual connection to the backing panel).

10. Watters discloses a light-emitting acoustic module according to claim 7, wherein the spacing member has a central opening (see void between 5 and 15), and wherein the light-emitting elements (1) are disposed within the central opening of the spacing member (Figure 1).

11. With respect to claim 8, Watters discloses a light-emitting acoustic module, wherein the cavity attenuates and traps sound (Column 5, Lines 13-20).

12. Regarding claim 11, Watters discloses an alternative to the non-rigid cover in a light-emitting acoustic module, wherein the cover is a rigid material (Column 2, Lines 3-5).

13. In reference to claim 12, Watters discloses a light-emitting acoustic module, wherein the cover includes small perforations to provide for sound entry (Column 2, Lines 64-70).

14. Watters discloses the light emitting acoustic module of claim 14, wherein the lighting elements (1) are located on the backing panel (Figure 1).

15. With respect to claim 19, Watters discloses a light-emitting acoustic module, wherein the cover is made of a woven material (Figure 5, Column 6, Lines 24-27).

16. Watters discloses the light emitting acoustic module of claim 21, wherein, wherein the backing panel is planar and edge-suspendable so as to be usable in a hung ceiling system (Figure 1).

17. Regarding claim 22, Watters discloses a light-emitting acoustic module, wherein the edges of the backing panel have a stepped configuration for overlapping the edges of adjacent modules when installed in the hung ceiling system (Figure 1; reference numbers 9 and 13 allows for stepped configuration by overlapping other panels on the t-bar).

18. Watters discloses the light-emitting acoustic module according to claim 23, wherein the backing panel includes mounting features disposed on a rear surface thereof for attaching the backing panel to the support (see box above reference number 3, Figure 1).

19. In reference to claim 24, Watters discloses a light-emitting acoustic module, wherein the mounting features are configured to allow for a cluster of multiple similar modules to be mounted in overlapped fashion (Figure 1, reference numbers 9 and 13 allow for multiple panels to be assembled together).

20. Regarding claim 26, Watters discloses a light-emitting module, wherein the backing panel is planar and rectangular (Figure 1, Character 5).

21. With respect to claim 36, Watters discloses a light-emitting acoustic module, wherein the light-emitting elements comprise fluorescent lamps (Column 2, Lines 52-53).

22. Watters discloses the acoustic light emitting acoustic module according to claim 37, wherein the backing panel is acoustically absorbent (Column 5, Lines 12-18).

23. Regarding claim 39, Watters discloses a light-emitting acoustic module, wherein the light-emitting elements are disposed on a sub-assembly that is installable separately from the remainder of the module (3).

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

25. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Watters in view of Capaul (Patent 5,782,551), hereafter referred to as Capaul.

26. Watters does not explicitly disclose a light emitting acoustic module further comprising audio loudspeakers disposed in the cavity.

27. Capaul discloses a light-emitting module, further comprising audio loudspeakers disposed in the cavity (Column 5, Lines 25-50).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the light emitting speaker module of Capaul in the lighting configuration of Watters for the benefit of allowing for an aesthetically pleasing audio assembly to be included in an office while additionally enabling excessive noise to be absorbed within the ceiling.

29. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Watters in view of Zarem, et al. (Patent 5,457,557), hereafter referred to as Zarem.

30. Watters is silent to a light emitting acoustic module wherein a wireless network access point is disposed in the cavity.

31. Zarem discloses a light-emitting acoustic module, further comprising a wireless network access point disposed in the cavity (Column 3, Lines 24-39).

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the wireless network access point of Zarem in the acoustic light emitting module of Watters for the benefit of enabling the aesthetics of the ceiling to be maintained while allowing for safe storage of the wireless network access point.

33. **Claims 11 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Watters in view of Castelli (Patent 4,829,728), hereafter referred to as Castelli.

34. With respect to claim 11, Watters is silent to a light-emitting acoustic module, wherein the cover includes integrated phosphor pigments so as to be excited by the lighting elements and emit light.

35. Castelli discloses a light-emitting acoustic module, wherein the cover includes integrated phosphor pigments so as to be excited by the lighting elements and emit light (Column 2, Lines 1-2).

36. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the light emitting acoustic module of Watters with the pigmentation disclosed in Castelli for the benefit of having increased illumination emanating from the ceiling.

37. Regarding claim 20, Watters is silent to a light-emitting acoustic module, wherein the woven material incorporates metallic light-reflective fibers.

38. Castelli discloses a light emitting acoustic module, wherein the woven material incorporates metallic light-reflective fibers (Column 2, Lines 1-2).

39. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the light emitting acoustic module of Watters with pigmentation disclosed in Castelli for the benefit of having increased illumination emanating from the ceiling.

40. **Claims 15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Watters.

41. The examiner takes Official Notice that the use of LEDs is old and well known in the illumination art. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to substitute an LED/OLED/HBLED for the light source in the system of Watters. One would have been motivated since LEDs are recognized in the illumination art to have many desirable advantages, including reduced size, high efficiency, low power consumption, long life, resistance to vibrations, and low heat production, over other light sources.

42. **Claims 18 and 30-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Watters in view of Bailey (Patent 6,540,373), hereafter referred to as Bailey.

43. With respect to claim 18, Watters is silent to a light-emitting acoustic module, wherein at least two arrays of light-emitting diodes are included, a first array being centrally located and a second array being disposed about the first array and spaced apart therefrom.

44. Bailey discloses a light-emitting acoustic module, wherein at least two arrays of light-emitting diodes are included (Figure 1 shows multiple arrays of lighting within a ceiling system), a first array being centrally located and a second array being disposed about the first array and spaced apart therefrom (Figures 1 and 3).

45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the configuration of Bailey in the light emitting acoustic module of Watters for the benefit of easy installation and increased illumination.

46. In reference to claim 30, Watters is silent to a light-emitting module wherein the light-emitting elements comprise color-changing solid-state lighting elements.

47. Bailey discloses a light emitting ceiling module wherein the light-emitting elements comprise color-changing solid-state lighting elements (Column 7, Lines 50-59).

48. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the lighting configuration of Bailey in the light emitting acoustic module of Watters for the benefit of tailoring the lighting scheme to have a desired effect.

49. Regarding claim 31, Watters is silent to a light-emitting acoustic module, wherein the color-changing solid-state lighting elements comprise stacked red-green-blue (RGB) light-emitting diode (LED) chips.

50. Bailey discloses a light-emitting acoustic module, wherein the color-changing solid-state lighting elements comprise stacked red-green-blue (RGB) light-emitting diode (LED) chips (Column 6, Lines 61-67).

51. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the lighting configuration of Bailey in the light emitting acoustic module of Watters for the benefit of tailoring the lighting scheme to have a desired effect.

52. With respect to claim 32, Watters is silent to a light-emitting acoustic module, wherein the solid-state lighting elements are controllable via analog electronics.

53. Bailey discloses a light-emitting acoustic module, wherein the solid-state lighting elements are controllable via analog electronics (Column 5, Lines 1-20).

54. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the configuration of Bailey in the light-emitting module of Watters for the benefit of being able to control the light source with a conventional, cost effective configuration.

55. **Claims 25 and 26-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Watters.

56. While Watters discloses a light emitting acoustic module of claim 26, wherein the backing panel is planar and rectangular (Figure 1, character 5). Watters is silent to a light emitting acoustic module wherein each of the modules of the cluster is planar and oval, square, planar and oval, and planar and round.

57. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the variance of shape in the present configuration of Watters, since it has been held by the courts that a change in shape or configuration, without any criticality, is nothing more than one of numerous shapes that one of ordinary skill in the art will find obvious to provide based on the suitability for the intended final application. See *In re Dailey*, 149 USPQ 47 (CCPA 1976). It appears that the disclosed device would perform equally well shaped as disclosed by Watters.

58. **Claims 33-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Watters and Bailey as applied to claim 30 above further in view of Bailey (Patent 6,764,196), hereafter referred to as Bailey ('196).

59. The previous combination does not explicitly disclose a light emitting acoustic module of claim 33, wherein the solid-state lighting elements are controllable via digital electronics.

60. Bailey ('196) discloses a light emitting acoustic module, wherein the solid-state lighting elements are controllable via digital electronics (Column 6, Lines 8-15).

61. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the configuration of Bailey ('196) in the light-emitting module of Watters and Bailey (373) for the benefit of having ease and flexibility in controlling the illumination in a room.

62. With respect to claim 34, the previous combination does not explicitly disclose a light-emitting acoustic module, wherein the digital electronics are hardwired to the solid-state lighting elements.

63. Bailey ('196) explicitly discloses a light-emitting acoustic module, wherein the digital electronics are hardwired to the solid-state lighting elements.

64. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the configuration of Bailey ('196) in the light-emitting module of Watters and Bailey (373) for the benefit of having ease and flexibility in controlling the illumination in a room.

65. With respect to claim 35, the previous combination does not explicitly disclose a light-emitting acoustic module, wherein the digital electronics are wirelessly coupled to the solid-state lighting elements.

66. Bailey discloses a light-emitting acoustic module, wherein the digital electronics are wirelessly coupled to the solid-state lighting elements (Column 6, Lines 8-15).

67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the configuration of Bailey ('196) in the light-emitting module of Watters and Bailey (373) for the benefit of having ease and flexibility in controlling the illumination in a room.

68. **Claim 38** is rejected under 35 U.S.C. 103(a) as being unpatentable over Watters in view of Kennedy (PG Pub 2007/0000201), hereafter referred to as Kennedy.

69. Watters is silent to a light emitting acoustic module wherein the backing panel and cover have respective openings for permitting passage of a sprinkler head when the module is installed in a ceiling.

70. Kennedy discloses a light emitting acoustic module wherein the backing panel and cover have respective openings for permitting passage of a sprinkler head when the module is installed in a ceiling (¶97).

71. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the sprinkler configuration of Kennedy in the light emitting module of Watters for the benefit of upholding the aesthetic value of the ceiling while providing for a safety feature.

72. **Claim 40** is rejected under 35 U.S.C. 103(a) as being unpatentable over Watters in view of Capaul.

73. Watters is silent to a light-emitting acoustic module, wherein the cover is removably attached to the backing panel to permit access to the cavity of the module when installed in a ceiling.

74. Capaul discloses a light-emitting acoustic module, wherein the cover is removably attached to the backing panel to permit access to the cavity of the module when installed in a ceiling (Column 5, Lines 35-50).

75. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the panel configuration of Capaul in the light-emitting module of Watters for the benefit of having ease in accessing the light source when a repair is needed.

Conclusion

76. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristen A. Manskar whose telephone number is (571) 270-1220. The examiner can normally be reached on Monday-Friday 7:30a.m.-5p.m..

77. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

78. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kristina A Marsh

KAM

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Patent Examiner
TC 2800